a subject, comprising: administering to the subject an antigenic amount of an immunogenic fragment of an amyloid-β peptide, wherein said fragment comprises at least 75% D amino acids.

47. (Twice Amended) The method of claim 46, wherein said immunogenic fragment of an amyloid-β peptide comprises at least one region of an amyloid protein, said region being selected from the group consisting of: C-terminal region, β sheet region, GAG-binding site region, cellular adherence region, immunogenic fragments thereof, protein conjugates thereof, immunogenic derivative peptides thereof, immunogenic peptides thereof, and immunogenic peptidomimetics thereof.

48. (Twice Amended) The method of claim 46, wherein said immunogenic fragment of an amyloid-β peptide further comprises:

an N-terminal substituent selected from the group consisting of:

hydrogen;

lower alkyl group consisting of acyclic or cyclic having 1 to 8 carbon atoms;

aromatic group;

heterocyclic group; and

acyl group; and

a C-terminal substituent selected from the group consisting of hydroxy, alkoxy, aryloxy, unsubstituted and substituted amino groups.

51. (Twice Amended) The method of claim 48, wherein said immunogenic fragment of

E1 an amyloid-β peptide is selected from the group consisting of SEQ ID NOs:1-48.

56. (Twice Amended) A method for preventing or treating an amyloid-related disease in a subject, comprising administering to the subject an antigenic amount of a peptide having Formula I:

R' -(P)-R" (I)

wherein

P is an immunogenic fragment of an amyloid-β peptide selected from the E2 group consisting of: Aβ(1-42, all-D), C-terminal region, β sheet region, GAG-binding site region, cellular adherence region, immunogenic fragments thereof, protein conjugates thereof, immunogenic derivative peptides thereof, immunogenic peptides thereof, and immunogenic peptidomimetics thereof;

R' is an N-terminal substituent selected from the group consisting of:

hydrogen;

lower alkyl group consisting of acyclic or cyclic having 1 to 8 carbon atoms;

aromatic group;

heterocyclic group; and

acyl group; and

R" is a C-terminal substituent selected from the group consisting of hydroxy group, alkoxy group, aryloxy group, unsubstituted group, and substituted amino group, wherein said immunogenic fragment of an amyloid-β peptide induces an immune response by said subject against said immunogenic fragment.

61. (Twice Amended) The method of claim 56, wherein said immunogenic fragment of an amyloid-β peptide is selected from the group consisting of SEQ ID NOs:1-48.

104. (Amended) The method of claim 46, wherein said immune response prevents or reduces amyloid fibril formation.

105. (Amended) The method of claim 46, wherein said immune response prevents or reduces amyloid-induced neurodegeneration.

106. (Amended) The method of claim 46, wherein said immune response prevents or reduces amyloid-induced cellular toxicity.

107. (Amended) The method of claim 56, wherein said immune response prevents or reduces amyloid fibril formation.

108. (Amended) The method of claim 56, wherein said immune response prevents or reduces amyloid-induced neurodegeneration.

109. (Amended) The method of claim 56, wherein said immune response prevents or reduces amyloid-induced cellular toxicity.